

### **Remarks**

Claims 1, 7, 14, 16 and 18 were previously amended. Claims 20 are presently amended. Claims 1, 3-7, 9-16, 18 and 20 are pending in this application. The Examiner has rejected claims 1, 3-7, 9-16, 18 and 20 under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,697,924 to Swank (hereinafter “Swank”). Applicant respectfully traverses the Examiner’s rejections.

#### **A. Remarks Regarding Rejection of Claims 1, 3-7, 9-16, 18 and 20 Under 35 U.S.C. § 112**

The Examiner has rejected claims 1, 3-7, 9-16, 18 and 20 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner specified several phrases in certain claims as grounds for the rejections. (Office Action, p. 5-6.) Applicant has amended the claims and respectfully requests reconsideration in light of those amendments.

#### **B. Remarks Regarding Rejection of Claims 18 and 20 Under 35 U.S.C. § 101**

The Examiner has rejected claims 18 and 20 as being directed to non-statutory subject matter. Applicant respectfully submits that these claims are directed to statutory subject matter.

Patentable subject matter is “any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereto.” *See* 35 U.S.C. § 101. “[F]unctional descriptive material’ consists of data structures and computer programs which impart functionality when employed as a computer component.” MPEP § 2106.01. “When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since

use of technology permits the function of the descriptive material to be realized.” MPEP § 2106.01.

In rejecting the claims, the Examiner states:

15. Claim 18 is directed to non-statutory subject matter because it just a computer program (i.e., software per se), which fails to establish a statutory category of invention.

16. Claim 18 is directed to non-statutory subject matter because it merely a data structure with non-functional descriptive data (i.e., just data listings) which fails to establish a statutory category of invention.

(Office Action, p. 7.) Applicant respectfully disagrees.

First, claims 18 and 20 are functional. Claim 18 imparts functionality in *associating* one or more application identifiers and storage units identifies with an association module. Claim 18 further imparts functionality in *assigning* each storage unit to each host having the identified application. Claim 20 imparts functionality in “each row of the mapping table *forming an association* of a storage unit identified by the storage identifier and a host having the application identified by each associated application identifier.” Therefore, for at least these reasons, the claims may be more aptly characterized as *functional* descriptive material, rather than *nonfunctional* descriptive material.

Second, Applicant has amended claim 18 to clarify that the computer program is stored in a computer-readable tangible medium. Accordingly, the interrelation of claim 18’s computer program to the computer-readable medium and the information handling system permits the functionality of the computer program to be realized. Likewise, with amended claim 20, the data structure is stored in memory; claim 20 does not claim merely the underlying data of a memory. The claim contains both information used by the information handling system and information regarding the physical interrelationships of storage units identifiers, application

identifiers, applications, and host computers within a memory. The claim dictates how information handling systems manage information. Thus, the claim defines functional characteristics of the memory. *Compare In re Lowry*, 32 F.3d 1579, 32 USPQ 2d 1031 (Fed. Cir. 1994)(finding that memory claims comprising a data structure “define functional characteristics of the memory” because, rather than “represent[ing] merely underlying data in a database . . . [the claimed invention] contain both information used by application programs and information regarding their physical interrelationships within a memory. Lowry’s claims dictate how application programs manage information.”).

Third, as a computer program stored in a tangible medium, claim 18 may be aptly tied to the statutory category of a product of manufacture. *See In re Beauregard*, 53 F.3d 1583, 35 USPQ 2d 1383 (Fed. Cir. 1995). As memory containing a data structure, claim 20 also may be aptly tied to the statutory category of a product of manufacture. *See In re Lowry*, 32 F.3d 1579, 32 USPQ 2d 1031 (Fed. Cir. 1994)(where claim 1 was directed to a memory comprising a data structure, the “Board found that claims 1 through 5, directed to a memory containing stored information, as a whole, recited an article of manufacture [and] . . . was statutory subject matter.”)

Fourth, to the extent the claims may be characterized as a process, the claims may be aptly tied to a machine under the machine-or-transformation test of the Federal Circuit. A claim is not a patent-eligible “process” under § 101 if it claims “laws of nature, natural phenomenon, [or] abstract ideas.” *See Diamond v. Diehr*, 450 U.S. 175, 185 (1981). For determining whether a process is patent eligible under 35 U.S.C. § 101, the Court of Appeals for the Federal Circuit recently affirmed the “machine-or-transformation test.” *In re Bilski*, 88 U.S.P.Q.2d 1385, 2008 WL 4757110, at \*11 (Fed. Cir. Oct. 30, 2008). Under the “machine-or-

transformation test” a claim directed to a process is patent-eligible if it (1) is tied to a particular machine or (2) transforms a particular article into a different state or thing. *Id.* Thus, for a claim directed to a process to be patent eligible under 35 U.S.C. § 101, the claim must either be tied to a particular machine or the claim must transform an article into a different state or thing. Claim 18 is explicitly drawn to a computer program on a computer-readable tangible medium; claim 20 is explicitly drawn to a memory of an information handling system. Both claims 18 and 20 impart functionality when employed with a computer. As such, the claimed subject matter constitutes statutory subject matter because the computer program is tied to at least one machine—a computer.

Accordingly, for at least these reasons, the claimed subject matter of claims 18 and 20 constitutes statutory subject matter. Applicant requests that the rejection be withdrawn.

**C. Remarks Regarding Rejection of Claims 1, 3-7, 9-16, 18 and 20 Under 35 U.S.C. § 102(e)**

The Examiner has rejected independent claims 1, 7, 14, 16, 18 and 20 as being anticipated by Swank. Applicant respectfully submits that the cited reference does not anticipate the claims. Swank standing alone does not contain each and every element of the claimed invention and, as such, the reference cannot anticipate the amended claims. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989) (“The identical invention must be shown in as complete detail as is contained in the . . . claim.”).

In particular, Swank fails to disclose at least: “assigning each storage unit . . . to each host computer having the application . . . wherein each storage unit is operable *for use by an application* that has been identified to the storage unit,” as required by claim 1; “permitting access to the storage unit *for use by an application associated with the request application identifier of the storage unit* and the request application identifier have an association . . .,” as required by claim 7; “the assigned storage unit being associated through an association module with the application identifier to form an association, wherein each storage unit assigned is operable *for use by an application that has been identified to the storage unit*,” as required by claim 14; “assigning each storage unit identified by each storage unit identifier to each host having the application identified by each associated application identifier, wherein each storage unit assigned is operable *for use only by each identified application*,” as required by claim 16; and “assigning each storage unit identified by each storage unit identifier to each host having the application identified by each associated application identifier, wherein each storage unit assigned is operable *for use by an application that has been identified to the storage unit*,” as required by claim 18. Thus, for each of these limitations, the storage unit is for use by the application identified or assigned to the storage unit.

To address these limitations, the Examiner states:

Nevertheless, Swank teaches assigning storage units (LUNs) specific hosts, once assigned, the LUN can only be used by those operating systems identified on the assigned hosts (column 37, lines 25-35 and Fig. 17).

(Office Action at 3.) However, Swank merely discusses “*hosts* to which the LUN is assigned.”

(Swank 37:30 (emphasis added).) Swank does not disclose assignments of storage on an

application basis—such as assigning for use by the application that has been identified to the storage unit, as claims 1 and 14 require.

In responding to Applicants' arguments, the Examiner states that:

The Examiner notes that the claims do not require a conditional statement (i.e. assigning a host to a LUN based on an association). Given the broad claim language, the claims merely require that a storage unit is assigned to a host, that an application is identified and there are associations. Again, the claims do not require that different assignments are made based on different associations.

(Office Action at 4.) Applicant disagrees with this characterization of the claims and would point out that the claims do require an assignment based on an association. Consider claim 1, for example. Claim 1 requires, *inter alia*, associating application and storage unit identifiers—an association on an application basis (“associating . . . application identifier and . . . storage unit identifiers”). The claim further requires, based on that association, assigning storage units to host computers having the application, for use by the application (“for each association, assigning each storage unit identified . . .”).

The portions of Swank cited by the Examiner merely discuss “*hosts* to which the LUN is assigned” (Swank 37:30 (emphasis added)), the GUI interface representing operations of storage area networks including assignment and deassignment (Swank 3:50-52), and allowing an administrator to assign a logical unit number to a storage area network (Swank 3:42-44). Swank does not discuss assigning a storage unit to a host on an application basis. Assigning a storage unit on a host basis is not equivalent to assigning storage on an application basis. Nor is use by an identified operating system equivalent to assigning storage on an application basis. Nowhere does Swank discuss use by the application to which the storage unit is assigned or identified.

Moreover, the Examiner characterizes Swank's operating system as equivalent to an "application." (See Office Action at 3 ("the LUN can only be used by those operating systems identified on the assigned hosts").) In so doing, the Examiner provides an unreasonable interpretation of the claim term. The interpretation of the term "application" should be made according to the plain meaning of the term unless such meaning is inconsistent with the specification. MPEP § 2111.01. "Plain meaning" refers to the ordinary and customary meaning given to the term by those of ordinary skill in the art. *Id.* The ordinary and customary meaning of a term may be evidenced by the claims themselves, the specification, the prosecution history, and extrinsic evidence concerning the meaning of technical terms. *Id.* "If extrinsic reference sources, such as dictionaries, evidence more than one definition for the term, the intrinsic record must be consulted to identify which of the different possible definitions is most consistent with Applicants' use of the terms." *Id.* Therefore, the most reasonable interpretation of the plain meaning of the term "application" would be a definition provided by extrinsic evidence which is most consistent with Applicant's use of the term. Applicant respectfully submits that one of ordinary skill in the art would understand an "application" to be distinct and separate from an "operating system," because operating system software is application-independent. (See *Authoritative Dictionary of IEEE Standards Terms*, 2000, 7th Edition (defining "operating system software" as "Application-independent software that supports the running of application software and manages the resources of the application platform").)

Such interpretation is consistent with the disclosure of the instant application. For example, the specification discloses that a "technical advantage of the disclosed systems and methods . . . is that access to a LUN need not be granted to all applications in a host computer." (Spec. at ¶ 0007.) It would be unreasonable to interpret "application" as encompassing Swank's

operating system. Therefore, under the broadest *reasonable* interpretation of the term “application,” Swank fails to disclose assigning a storage unit to a host on an application basis.

As to claim 20, Swank fails to disclose at least: “a mapping table having at least one row, each row of the mapping table including a storage unit identifier and an application identifier,” as required by the claim. To address this limitation, the Examiner cites to column 3, lines 40-67 of Swank. (Office Action at 11.) Yet, nowhere in that portion of Swank is a mapping table or application identifier even mentioned. The Examiner also relies on Figures 17 and 18. (Office Action at 11.) Again, nowhere in those figures is there depicted a mapping table with application identifiers. In describing those figures, Swank discusses LUN attributes, the names of hosts to which LUNs are assigned, IP addresses and operating systems of the host (*e.g.*, Swank 37:29-31), but Swank does not disclose a mapping table with application identifiers. Swank fails to so much as mention applications or application identifiers in that discussion. (*See* Swank 37:5-57.) Accordingly, Swank fails to disclose at least one limitation of claim 20.

Thus, for at least these reasons, Swank fails to teach or disclose each and every element of independent claims 1, 7, 14, 16, 18 and 20, Swank does not anticipate these claims. Applicant respectfully submits that these independent claims are allowable. Additionally, Applicant submits that dependent claims 3-6, 9-13 and 15 are allowable, as they depend from otherwise allowable base claims.

**D. Remarks Regarding Rejection of Dependent Claims 3-6, 9-13 and 15 Under 35 U.S.C. § 103**

The rejection of dependent claims 3-6, 9-13 and 15 will not be discussed individually herein, as each of these claims depends, either directly or indirectly, from an otherwise allowable base claim.



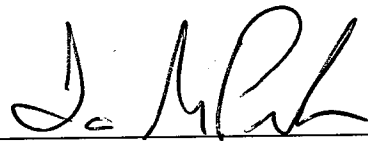
**E. No Waiver**

All of Applicant's arguments and amendments are without prejudice or disclaimer. Additionally, Applicant has merely discussed example distinctions from the cited references. Other distinctions may exist, and Applicant reserves the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by examiner, Applicant does not acquiesce to examiner's additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art. The example distinctions discussed by Applicant are sufficient to overcome the anticipation rejections. The current amendments to the claims are sufficient to overcome the novelty and obviousness rejections.

**Conclusion**

Applicant respectfully submits that the pending claims 1, 3-7, 9-16, 18 and 20 of the present invention, as amended, are allowable. Applicant respectfully requests that the rejection of the pending claims be withdrawn and that these claims be passed to issuance.

Respectfully submitted,



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